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EXAMINER
HOLLOWAY III, EDWIN C

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/826,541	TRIMBLE ET AL.	
	Examiner	Art Unit	
	Edwin C. Holloway, III	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,22,24-32 and 34-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20, 22, 24-32 and 34-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

EXAMINER'S RESPONSE

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-10-2008 has been entered. Claims 1-20, 22, 24-32 and 34-36 are pending. The examiner has considered the new presentation of claims and applicant's arguments in view of the disclosure and the present state of the prior art. And it is the examiner's opinion that the claims are unpatentable for the reasons set forth in this Office action:

Priority

2. Applicant’s claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention that is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See Transco Products, Inc. v. Performance Contracting, Inc., 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application

No. 10/279,405 and 09/679,841, fail to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application as explained below:

Claims 1-20, 22, 24-32 and 34-36 A transmitter unit having a plurality of object locating switches and a master switch associated with a master code.

Claim 3: An activation signal including the target address codes and being transmitted at 315 MHz.

Claims 13 and 14: A memory storage device that stores a preselected sound sample that is generated by the remote locator unit upon receipt of the target address code.

Claims 15 and 16: At least one of the remote locator units including an activation switch, wherein the remote locator's microprocessor activates an indicator device upon receiving the target address code or upon depression of the activation switch.

Claim 17: An activation signal comprising a data packet.

Claims 18-20, 22 and 24-27: An adapter being positioned between a portable work tool powered by a removable battery pack and the associated battery pack and including a remote locator unit.

These applications (Application No. 10/279,405 and 09/679,841) all fail to provide adequate support claims 3 and 13-36 of the current specification as filed. Consequently, in the prosecution of this application, the priority date is established to be the filing date of the application (i.e., 16 April 2004).

Specification

3. The disclosure is objected to because of the following informalities: The related application data in the specification should be updated to include the abandoned status of 10279405.

Appropriate correction is **required.**

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-2, 4-5, 22, 28-29, 31-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143).

Referring to claims 1 and 28, Lander's locating system, as shown in Fig. 9, comprises (1) transmitter unit 100' and (b) a plurality of receiver units 120' (i.e., remote locator units) (see Col. 6, lines 9-17). Per Lander, transmitter unit 100', as shown in Fig. 9, comprises (1) a plurality of push switches 102' (see Col. 5, lines 21-45 and Col. 6, lines 12-17); (2) radio frequency (RF) transmitter 110' (see Col. 4, lines 20-22; Col. 5, lines 42-45 and 55-67; and Col. 6, lines 9-12); and (3) encoder 108' (i.e., microprocessor), which is positioned between push switches 102' and transmitter 110', that controls the transmission of the plurality of coded RF activation signals and must have a memory storing a plurality of target address codes, each target address code being associated with a receiver unit 120, whereupon depression of a push switch 102' causes RF transmitter 110's to transmit a signal including the target address code assigned to the depressed push switch 102' (see

Col. 4, lines 40-53; Col. 5, lines 21-45 and 55-67; and Col. 6, lines 12-17). Regarding Lander's receiver units 120, each receiver unit 120' comprises (1) RF receiver 122' (see Col. 4, lines 39-48; Col. 5, lines 67-68; and Col. 6, lines 1-17); and (2) decoder 120' (i.e., microprocessor) including a memory that stores a programmable target address, wherein decoder 120' activates pulser 128' to energize beeper 130' and lamp 132' upon RF receiver 122' receiving the target address code corresponding to the stored target address code (see Col. 4, lines 39-48; Col. 5, lines 21-42 and 67-68; and Col. 6, lines 1-17).

Regarding claims 1, 22 and 28, Lander fails to teach (1) transmitter unit 100' further having a master switch and encoder 108' (i.e., a microprocessor) including a master address code associated with the master switch, wherein transmitter 110' transmits the activation signal including the master address code upon depression of the master switch and receiver unit 120', which includes the master address stored in decoder 126' (i.e., a microprocessor) activates bleeper 130's and lamp 132' upon receiver 122' receiving the master address code (as called for in claim 1); and (2) the target address codes and the master address code are transmitted by transmitter 110' at a single frequency (as called for in claim 22).

In an analogous art, Hedrick teaches activating switches 22

and master activation switch 76, as shown in Figs. 1 and 4, forming a transmitter unit. As called for in claim 1, per Hedrick, activation of master activation switch 76 causes RF transmitter 70 to transmit a plurality of codes 72, which are understood to be master address codes, to response units 14 (see Col. 3, lines 20-27 and 36-42). As in claim 34, upon receiving the master address codes, wherein each response unit 14 has a master address code 72 stored in code program 64, each response unit 14 activates its beeper 66 (see Col. 3, lines 3-13, 20-27, and 36-39). As called for in claim 22, Hedrick discloses that the master address codes and target address codes are transmitted by RF transmitter 70 at a single frequency (see Col. 3, lines 18-22).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Hedrick because (1) a transmitter unit 100’ further having a master activation switch 76 and a master address code associated with the master switch stored in encoder 108’, wherein transmitter 110’ transmits the activation signal including the master address code upon depression of the master switch and (2) receiver unit 120’, which includes the master address stored in decoder 126’ (i.e., a microprocessor) activating bleeper 130’s and lamp 132’

upon receiver 122’ receiving the master address code (as called for in claim 21) enable a user to look for all objects connected to receiver units 120’ by depressing a single switch, thereby making the system convenient and easy to use (see Hedrick, Col. 3, lines 20-24 and 36-42). In addition, transmitting the target address codes and the master address code at a single frequency (as called for in claim 22) enables transmitter unit 100’ to transmit target address codes and the master address code via the same transmitter.

Further regarding claims 1, 22, 28 and 34, the combination applied above fails to teach the master address code stored in the remote locator unit for each of the adapters is the same and is different from the unique target code.

In an analogous art, Wissel discloses a selective call system, as shown in Fig. 1, comprising a call transmitter 16 and a plurality of transceivers 1-15 with indicators 19 (col. 1 lines 37-46, col. 4 lines 55-64). The transmitter includes buttons 1-15 to selectively transmit a unique target address to call a transceiver 1-15 and an additional button C to transmit a conference call or master address that is different from all the target addresses to simultaneously call all the transceivers (col. 3 lien 62 - col. 4 line 3, col. 4 line 55 - col. 5 line 47). Transmitted addresses are encoded by the circuit in fig 2

and received address are decoded by the circuit in figs. 3 and 5 that store the unique target and master address. Lamps are activated in response to calling in col. 8 lines 36-55. Although locating is not expressly discussed, the activated indicator(s) would indicate location of the activated transceiver(s).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Wissel because having transmitter unit 100' transmit one master address code instead of a plurality of address codes upon depression of master activation switch 76 and having each receiving unit 120' store the same master address code and activate bleeper 130's and lamp 132' upon receiver 122' receiving the master address code would allow simultaneous activation of all the receiving units. The "rapid succession" in col. 3 lines 21-23 of Hedrick suggested rapid speed of activating the receivers, and the "simultaneous activation" of Wissel would have provided the ultimate activating speed.

Regarding claims 2 and 29, Lander teaches that transmitter unit 100' transmits each target address code via RF transmitter 110' using a pulse-position modulated RF carrier wave of 10-150 KHz (see Col. 5, lines 58-67 and Col. 6, lines 9-17). In other

words, Lander's activation signal is transmitted by RF transmitter 110' at a single frequency.

Regarding claims 4 and 31, Lander discloses that receiver unit 120' generates an audible signal via pulser 128' and bleeper 130' (see Col. 3, lines 25-30; Col. 4, lines 40-48; Col. 5, lines 67-68; and Col. 6, lines 1-8).

Regarding claims 5 and 32, Lander discloses that receiver unit 120' generates a visible signal via pulser 128' and lamp 132' (see Col. 3, lines 25-30; Col. 4, lines 40-48; Col. 5, lines 67-68; and Col. 6, lines 1-8).

6. Claims 3, 6-9, 30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143) as applied and further in view of Bender (US 6,147,602).

Regarding claims 3 and 6-9, 30, as called for in claim 8, Lander teaches attaching receiver unit 120' to a tool, which is understood to be a power tool (see Col. 1, lines 53-61). And as called for in claim 9, Lander teaches attaching receiver unit 120' to keys (see Col. 1, lines 15-18). Lander, however, fails to teach that transmitter unit 100' transmits a plurality of coded address signals at 315 MHz (as called for in claims 3 and 30), that receiver unit 120' is incorporated into an object and cannot be separated therefrom (as called for in claims 6 and

36), such objects being a piece of luggage (as called for in claim 7), a tool (as called for in claim 8), and a key (as called for in claim 9).

In an analogous art, Bender's luggage locator system comprises (a) transmitter unit 30 (see Fig. 4) and (b) a receiver unit (see Col. 3, lines 19-26). As shown in Figs. 4 and 5, Bender's transmitter unit 30 comprises (1) activation button 31/pushbutton switch S2 (i.e., an object locating switch) (see Col. 5, lines 4-7); (2) transmitter circuitry that produces an encoded RF signal (see Col. 4, lines 65-67 and Col. 5, lines 1-9 and 43-47); (3) a memory formed by an array of dip switches S1 that stores a unique binary number (i.e., target address) to be coded with a transmitted signal (see Col. 5, lines 47-52); and (4) a digital oscillator unit that controls the transmission of an encoded RF signal and is connected to the array of dip switches S1 such that the depression of activation button 31/pushbutton switch S2 causes the transmitter circuitry to transmit an encoded RF signal including the unique binary number (see Col. 3, lines 39-42; Col. 5, lines 4-7 and 43-59). Bender's receiver unit, as shown in Figs. 2, 3, and 6A, comprises (1) antenna ANT1, a signal passing circuit, and an analog-to-digital conversion circuit forming an RF receiver that receives transmitter unit 30's encoded RF signal (see Col. 5,

lines 14-17 and 60-64); and (2) digital decoder unit DEC coupled to the receiver and an array of dip switches S1, which is a memory that stores a programmable unique binary number, and activates a light emitting diode LED and a sound generator circuit when the RF receiver receives a binary number that corresponds to the stored binary number (see Col. 3, lines 39-46; Col. 5, lines 14-17, 28-42, and 60-67; and Col. 6, lines 1-16). As called for in claim 3, Bender discloses that transmitter unit 30's RF circuit generates an RF signal at 315 MHz and at a power level sufficient for locating an object within 50-100 feet (see Col. 5, lines 54-57). As called for in claims 6 and 7, Bender further discloses directly incorporating the receiver unit into an object, particularly a piece of luggage (see Col. 2, lines 13-17 and 54-57 and Col. 3, lines 19-26). In addition, Bender suggests incorporating the receiving unit into other objects (see Col. 1, lines 7-8 and 64-67; Col. 2, line 1; and Col. 6, lines 17-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify locator system of the combination applied above as taught by Bender because (1) transmitter unit 100' transmitting a plurality of coded address signals at 315 MHz has a communication range of 50-100 feet (see Bender, Col. 5, lines

54-57), which is greater than the communication range provided by Lander's system, which uses a low frequency (LF) carrier wave of 10-150 KHz (see Lander, lines 7-14 and Col. 7, lines 9-55). In addition, the chances of receiver unit 120' falling off or being accidentally removed from the object to which it is attached are eliminated by directly incorporating receiver unit 120' into an object and cannot be separated therefrom (as called for in claim 6), such objects being a piece of luggage (as called for in claim 7), a power tool (as called for in claim 8), and a key (as called for in claim 9), thereby improving the effectiveness of the system.

7. Claims 15-16 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143) as applied above and further in view of Calhoun et al. (US 6,850,151).

Regarding claims 15-16 and 35, Lander's receiver unit 120's lacks an activation switch that causes decoder 126' to activate lamp 132' upon depression of the activation switch (as called for in claim 15), wherein lamp 132' is activated for a predetermined period of time upon depression of the activation switch (as called for claim 16).

In analogous art, Calhoun's locating system, as shown in Fig. 1, comprises (a) transmitter unit 12 held by user 3 and (b)

receiver unit 13 (see Col. 6, lines 9-22). As shown in Figs. 7, Calhoun teaches that transmitter unit 12 includes (1) mode button 32, set button 34, “on command” button 27 forming a plurality of object locating switches (see Col. 6, lines 41-46 and 51-53; Col. 7, lines 7-10; and Col. 9, lines 60-65); (2) transmitter 25 that produces a plurality of activation signals (see Col. 6, lines 33-35); and (3) microprocessor 28, which is positioned between the object locating switches and transmitter 25, that controls the transmission of the activation signals (see Col. 6, lines 33-53), wherein transmitter 25 transmits an activation signal upon depression of the “on command” button (see Col. 6, lines 51-53 and Col. 9, lines 60-65). As shown in Figs. 8 and 9, Calhoun teaches that receiver unit 13 includes (1) receiver 26 that receives an activation signal transmitted by transmitter unit 12 (see Col. 7, lines 34-38); and (2) microprocessor 38 coupled to receiver 26 and having a memory that stores a programmable address (see Col. 9, lines 4-19), wherein microprocessor 38 activates visible alert 50 and audible alert 60 upon receiver 26 receiving a valid activation signal (see Col. 9, lines 35-43 and 60-65). As called for in claim 15, Calhoun teaches that receiver unit 13 includes set button 46, which causes receiver unit 13 to enter a “learn” mode and visible alert 50 to flash when set button 46 is depressed (see

Col. 9, lines 2-4); thus set button 46 is understood to be an activation button. As called for in claim 16, Calhoun teaches that visible alert 50 is activated during receiver unit 13's "learn" mode (i.e., activated for a predetermined period) of time upon depression of set button 46 (see Col. 9, lines 2-10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Calhoun because a receiver unit 120 having activation switch that causes receiver unit 120 to enter a "learn" mode and decoder 126' to activate lamp 132' upon depression of the activation switch (as called for in claim 15), wherein lamp 132' is activated for a predetermined period of time upon depression of the activation switch (as called for claim 16), enables a user to program receiver unit 120' and determine when receiver unit 120's has learned its unique code.

8. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143) as applied above, and further in view of Reber et al. (US 5,950,632).

Regarding claims 10 and 11, though Lander suggests attaching receiver unit 120' to domestic articles, such as spectacles, keys, pets, pens, tools, etc. (see Col. 1, lines 15-

18 and 53-61), Lander fails to expressly teach securing receiver unit 120' to a medication container (as called for in claim 10) such that receiver unit 120' is formed as a portion of the medication container (as called for in claim 11).

In an analogous art, Reber teaches a medical communication apparatus, as shown in Fig. 3, comprising (a) communication apparatus 100 (i.e., a transmitter unit) and (b) medicine containers 102, 104, and 106 (see Col. 7, lines 60-63). As shown in Fig. 2, communication apparatus 50 comprises (1) at least one input device 70 (i.e., object locating switch) (see Col. 5, lines 55-57 and Col. 8, lines 50-54); (2) RF transmitter 72 that transmits a plurality of uniquely coded signals 35 (see Col. 3, lines 2-8; Col. 5, lines 41-44; Col. 6, lines 23-28; and Col. 8, lines 29-41); (3) processor 90 that is positioned between at least one input device 70 and transmitter 72, controls transmitter 72, and is connected to storage medium 66 that stores address codes for medicine containers 102, 104, and 106, whereupon depression of at least one input device 70 causes transmitter 72 to transmit a signal to a selected medicine container (see Col. 3, lines 2-8; Col. 5, lines 55-57; Col. 6, lines 36-43; and Col. 8, lines 29-41). As shown in Fig. 2, medicine container 52 includes (1) receiver 76 that receives an activation signal 35 including a target address code transmitted

by communication apparatus 50 (see Col. 3, lines 2-8; Col. 5, lines 44-59 and Col. 8, lines 29-41); and (b) processor 86 that must have a memory storing an address and that activates indicator 82 upon receiver 76 receiving an address code corresponding to the stored address (see Col. 3, lines 2-8; Col. 5, lines 44-59; Col. 6, lines 29-35; and Col. 8, lines 29-41). As called for in claims 10 and 11, each medicine container has a remote locator unit, formed by receiver 76, transmitter 80, indicator 82, sensor 84, and processor 86, secured to the container (as called for in claim 10), wherein the remote locator unit is formed as a part of the medication container by being mounted in a cap of medicine container 52 (as called for in claim 11) (see Figs. 2 and 3 and Col. 5, lines 60-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Reber because securing receiver unit 120’ to a medication container 52 (as called for in claim 10) such that receiver unit 120’ is formed as a portion of medication container 52’s cap (as called for in claim 11) enables a user to locate medication container 52 at times when the medicine is to be taken (see Reber, Col. 3, lines 2-8 and Col. 8, lines 37-41).

Regarding claim 12, Lander and Reber fail to teach that

receiver unit 120' includes a reset switch, wherein the depression of the reset switch terminates the activation of bleeper 130' and/or lamp 32'.

In an analogous art, Hedrick teaches a locating system, as shown in Fig. 1, comprising (a) activation switches 22 and master activation switch 76 forming a transmitter unit and (b) a plurality of response units 14 (i.e., remote locator units) (see Col. 2, lines 18-24 and Col. 3, lines 14-27). As shown in Fig. 4, Hedrick's transmitter unit comprises (1) a plurality of activation switches 22 (i.e., object locating switches) (see Col. 3, lines 18-20); (2) RF transmitter 70 that produces a plurality of uniquely coded activation signals (see Col. 3, lines 15-20); and (3) codes 72 stored in a memory, each code 72 associated with an activation switch 22, whereupon depression of one of the activation switches 32 causes RF transmitter 70 to transmit an activation signal including the target address code assigned to the depressed activation switch 22 (see Col. 3, lines 14-27). As shown in Fig. 3, Hedrick's response unit 14 comprises (1) RF receiver 62 that receives the activation signals transmitted by RF transmitter 70 (see Col. 3, lines 3-7); and (2) a microprocessor connected to code program 64 (i.e., a memory) that activates beeper 66 upon RF receiver 62 receiving the code corresponding to the one in code program 64 (see Col.

3, lines 7-13). As called for in claim 12, response unit 14 also includes reset button 20, wherein depression of reset button 20 terminates the activation of beeper 66 (see Col. 3, lines 10-13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Hedrick because a receiver unit 120' that includes a reset switch, wherein the depression of the reset switch terminates the activation of bleeper 130' and/or lamp 32', reduces power consumption of the receiver unit's battery (see Lander, Col. 4, lines 31-38).

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105), Wissel (US 4290143) and Reber et al. (US 5,950,632) as applied above and further in view of Winder et al. (US 6,133,832).

Regarding claim 13, Lander and Reber's receiver unit 120' lacks a memory device that stores a preselected sound sample that is generated by receiver unit 120' upon receipt of the target address code.

In an analogous art, as shown in Fig. 1, Winder's article location system comprises (a) transmitter unit 16 and (b) a

plurality of receiver tags 12 (see Col. 6, lines 21-27). Winder discloses that transmitter unit 16, as shown in Figs. 2 and 3, includes (1) alphanumeric keypad 26, scroll up button 28, scroll down button 30, and select button 32 (i.e., a plurality of object locating switches) to allow a user to select and activate any of the receiver tags 12 (see Col. 6, lines 46-52); (2) radio transmitter and microprocessor control circuit 22 having an RF transmitter that produces a plurality of uniquely coded activation signals (see Col. 6, lines 46-59); and (3) radio transmitter and microprocessor control circuit 22 having a microprocessor, which is positioned between the object locating switches and the RF transmitter, that controls the transmission of the plurality of coded RF activation signals and has a memory that stores a plurality of access codes (i.e., target address codes) (see Col. 6, lines 46-59; Col. 7, lines 4-16 and 65-67; and Col. 8, lines 1-3). Winder's receiver tags 12, as shown in Figs. 4 and 5, comprises (1) a radio receiving circuit that receives activation signals transmitted by radio transmitter and microprocessor control circuit 22 (see Col. 7, lines 4-11); and (2) a microprocessor, which is coupled to the radio receiving circuit, that activates tag speaker drive circuit 108 and laser diode drive circuit 110 upon the radio receiving circuit receiving the target address code corresponding to the stored

target address code (see Col. 6, lines 56-59 and Col. 7, lines 4-22). Winder's receiver tag 12 also must have a memory that stores a programmable target address code. As called for in claim 13, Winder teaches that receiver tag 12 includes a memory that stores a recorded sound sample provided into receiver tag 12's microphone 82 such that receiver tag 12 generates the recorded sound sample upon receipt of the target address code by the radio receiving circuit (see Col. 6, lines 60-67 and Col. 7, lines 16-22).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Winder because a receiver unit 120' having a memory device that stores a preselected sound sample that is generated by receiver unit 120' upon receipt of the target address code enables a user to select a sound sample that is more meaningful or distinguishable than the sound generated by bleeper 130'.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143) as applied to above and further in view of Winder et al. (US 6,133,832).

Regarding claim 14, Lander's receiver unit 120' lacks a memory device that stores a preselected sound sample that is

generated by receiver unit 120’ upon receipt of the target address code.

In an analogous art, Winder teaches the limitation called for in claim 14 as explained in the previous rejection of claim 13.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Winder because a receiver unit 120’ having a memory device that stores a preselected sound sample that is generated by receiver unit 120’ upon receipt of the target address code enables a user to select a sound sample that is more meaningful or distinguishable than the sound generated by bleeper 130’.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143) as applied above and further in view of Holbrook et al. (US 6,674,364).

Regarding claim 17, though Lander teaches that the activation signal is transmitted on a single frequency, Lander is silent on the activation signal including a data packet that contains one of the plurality of target address codes.

In an analogous art, Holbrook, as shown in Fig. 1, teaches a locator system comprising (a) transmitter 10 and (b) a

plurality of receivers 20. As shown in Figs. 8A and 8B, Holbrook's transmitter 10 includes (1) switches S1-S12 (i.e., a plurality of object locating switches) (see Col. 7, lines 63-67 and Col. 8, lines 1-16); (2) RF section that produces a plurality of uniquely coded data packets (see Col. 7, lines 33-41); and (3) microcontroller 70 connected between switches S1-S12 and the RF section, wherein microcontroller 70 includes a memory that stores a plurality of address codes, each address code associated with switch S1-S12 such that depression of a switch S1-S12 causes the RF section to transmit a data packet including the address code associated with the depressed switch S1-S12 (see Col. 7, lines 33-50 and 63-67; Col. 8, lines 1-16; and Col. 9, lines 30-35). Holbrook's receiver 20, as shown in Fig. 9, comprises (1) an RF section that receives data packets from transmitter 10 (see Col. 9, lines 50-54); and (2) microcontroller 78, which is coupled to the RF section, that includes a memory storing an address code, wherein microcontroller 78 activates piezoelectric transducer 80 upon the RF section receiving a data packet having an address code that corresponds to the stored address code (see Col. 9, lines 50-65 and Col. 10, lines 1-4 and 35-38). As called for in claim 17, the activation signal is transmitted at a single frequency of 315 MHz and includes a data packet containing one of the

plurality of target address codes (see Col. 7, lines 33-43; Col. 9, lines 30-36 and 50-54; and Col. 10, lines 35-38).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Holbrook because an activation signal including a data packet that contains one of the plurality of target address codes provides a header that can by used to wake up receiver unit 120' (see Holbrook, Col. 7, lines 41-43), thereby conserving power by enabling receiver unit 120' to wake up only when a valid header is received.

12. Claims 18-20, 24, 25, and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105) and Wissel (US 4290143) as applied above and further in view of Horiyama et al. (US 6,502,949).

Regarding claims 18-20, 24, 25, and 27, Lander teaches attaching receiver unit 120' to tools (see Col. 1, lines 53-61), which are understood to include power tools. Lander, however, fails to expressly teach (1) a portable work tool powered by a removable battery pack, an adapter positioned between the portable tool and the associated battery pack, and attaching receiver unit 120' to the adapter, as called for in claim 18;

(2) the adapter including a light source, as called for in claim 19; (3) the adapter's light source mounted onto a flexible neck, as called for in claim 20; (4) the adapter including a tool socket that connects the adapter to the tool and a battery socket to receive a removable battery pack, as called for in claim 24; (5) the adapter being integrally formed with the removable battery pack, as called for in claim 25; and (6) the portable tool including an activation trigger that activates the adapter's light source when depressed, as called for in claim 26.

In an analogous art, Horiyama's power tool adapter, as shown in Fig. 7 and called for in claim 18, comprises (a) drill 45 (i.e., a portable work took) powered by battery pack 31 (see Col. 6, lines 61-67) and (b) light adapter 1 positioned between drill 45 and battery pack 31 (see Col. 7, lines 38-47). As called for in claim 19, light adapter 1 includes light 26 (see Col. 5, lines 30-32). As called for in claim 20, light adapter 1's light 26 is mounted onto flexible neck 27 (see Col. 5, lines 30-32). As called for in claim 24, Horiyama teaches that light adapter 1 includes coupling portion 4 (i.e., a socket) that receives drill 45 and coupling portion 5 (i.e., a battery sock) that receives battery pack 31 (see Col. 6, lines 61-67 and Col. 7, lines 1-37). As called for in claim 25, it is understood

that when light adapter 1 is connected to battery pack 31, light adapter 1 and battery pack 31 form a unit; thus light adapter 1 is integrally formed with battery pack 31 when they are connected. As called for in claim 27, Horiyama discloses that light adapter 1's light 26 is activated upon activation of drill 45's activation trigger 49 (see Col. 6, lines 34-37 and Col. 8, lines 23-42).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Horiyama because a locator system comprising a portable work tool powered by a removable battery pack and an adapter positioned between the portable tool and the associated battery pack, wherein receiver unit 120' is attached to the adapter (as called for in claim 18), enables a user to track any portable work tool that is connected to the adapter attached with a receiver unit 120', thereby eliminating the need to attach receiver unit 120' to every tool and enabling a user to track light adapter 1. In addition an adapter including a light source 26, as called for in claim 19, provides the tool with additional functionality without increasing the tool's manufacturing cost (see Horiyama, Col. 1, lines 43-49) and enables a user to use the tool in poor light conditions.

Furthermore, mounting adapter's light source 26 onto flexible neck 27, as called for in claim 20, enables a user to manually adjust the position of light source 26 as needed (see Horiyama, Col. 2, lines 20-24). Additionally, an adapter including a tool socket that connects the adapter to the tool and a battery socket to receive a removable battery pack, as called for in claim 24, such that the adapter is integrally formed with the removable battery pack when connected, as called for in claim 25, avoids design changes of either the battery pack or the tool (see Horiyama, Col. 2, lines 1-3). Finally, a portable tool including an activation trigger that activates the adapter's light source 26 when depressed, as called for in claim 26, saves power and eliminates the need for manually turning on and off light source 26 (see Horiyama, Col. 8, lines 23-35).

13. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Hedrick (US 5,680,105), Wissel (US 4290143) and Horiyama et al. (US 6,502,949) as applied and further in view of Rabanne et al. (US 6,989,748).

Regarding claim 26, Lander and Horiyama are silent on receiver 122' and decoder 126', which is a microprocessor, receiving electrical power from battery pack 31.

In an analogous art, Rabanne teaches a tracking system 110,

as shown in Fig. 2, comprising (a) parent unit 126 (i.e., transmitter unit) and (b) a plurality of child units 122 (see Col. 5, lines 18-28). Per Rabanne, parent unit 126 includes (1) controls 128 (i.e., object locating switches) that selectively controls a plurality of child units 122 (see Col. 6, lines 13-22); (2) communicating device 142 that produces a plurality of uniquely coded activation signals 138 (see Col. 5, lines 31-34 and Col. 7, lines 22-26); and (3) processor 146 having a memory that stores the addresses of the child units 122 such that communicating device 142 transmits an activation signal including the address of a child unit 122 selected by a user via controls 128 (see Col. 5, lines 37-49; Col. 6, lines 13-22; and Col. 7, lines 15-26). Rabanne further teaches that child unit 122 includes (1) communicating device 130 that receives signals 138 transmitted by parent unit 126 (see Col. 5, lines 29-31 and Col. 7, lines 22-26); and (2) control 174 coupled to communicating device 130 that includes a memory storing an address and that activates alarm 106 when communicating device 130 receiving a control signal 138 having an address that corresponds to the stored address (see Col. 6, lines 41-42 and Col. 7, lines 22-26). As called for in claim 26, Rabanne teaches that child unit 122 is integrally formed with a removable battery pack 12 such that child unit 22’s components,

including microcontroller 604 and RF circuitry 624, receive electrical power from the battery (see Fig. 8; Col. 4, lines 50-67; Col. 5, lines 1-17; and Col. 10, lines 16-58).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Rabanne because receiver 122' and decoder 126', which is a microprocessor, integrated with a removable battery pack and receiving electrical power from battery pack 31 provide a tracking feature to an existing electronic device without requiring any modification to the electronic device (see Rabanne, Col. 4, lines 65-67 and Col. 5, lines 1-17).

14. Claims 1-5, 15-16, 22, 28-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of Hedrick (US 5,680, 105) and Wissel (US 4290143).

Referring to claims 1, 28, 22 and 34, Melbourne teaches a locator system, as shown in Fig. 1, comprises a plurality of locator units, wherein each locator unit functions as (a) a transmitter unit and (b) a remote locator unit (see Col. 3, lines 61-67 and Col. 4, lines 1-16, 22-63). As shown in Fig. 4, each locator unit comprises (1) a six-actuator key matrix 86 (i.e., a plurality of object locating switches) (see Col. 5,

lines 3-12 and Col. 6, lines 24-40 and 60-61); (2) radio transmitter 90 that produces a plurality of uniquely coded search signals (i.e., activation signals) (see Col. 5, lines 3-12; Col. 6, lines 65-67; and Col. 7, lines 1-10); (3) controller 84, which is coupled between key matrix 86 and transmitter 90 and connected to receiver 92, that controls transmission of the plurality of coded search signals, has a memory storing each identity (i.e., a plurality of target address codes) associated with each of key matrix 86's keys and its own identity, causes radio transmitter 90 to transmit a search signal including the identity associated with the key depressed on key matrix 86, and activates piezoelectric sounding device 98 and LED 100 upon receiver 92 receiving the locator unit's own identity (see Col. 4, lines 22-67; Col. 5, lines 3-12 and 23-45; Col. 6, lines 15-21 and 40-67; Col. 7, lines 1-34; Col. 8, lines 62-67; and Col. 9, lines 1-10); (4) receiver 92 that receives the search signals including locator unit identities (see Col. 4, lines 43-55; Col. 7, lines 10-34; and Col. 8, lines 62-66). Melbourne, however, fails to teach (1) each locator unit's key matrix 86 further comprising a master switch, each controller 84's memory storing a master address code that is associated with a master switch in addition to the locator unit's own identity and the identities of the other locator units and (2) each locator unit activating

its piezoelectric sounding device 98 and LED 100 upon reception of the master address code (as called for in claim 34).

In an analogous art, as explained above, Hedrick teaches activating switches 22 and master activation switch 76, as shown in Figs. 1 and 4, forming a transmitter unit. Per, Hedrick, activation of master activation switch 76 causes RF transmitter 70 to transmit a plurality of codes 72, which are stored in a memory and are understood to be master address codes associated with master activation switch 76, to response units 14 (see Col. 3, lines 20-27 and 36-42), as called for in claim 28. Upon receiving the master address codes, wherein each response unit 14 has a master address code 72 stored in code program 64, each response unit 14 activates its beeper 66 (see Col. 3, lines 3-13, 20-27, and 36-39), as called for in claim 34.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Melbourne's locator system as taught by Hedrick because (1) each locator unit's key matrix 86 further comprising a master switch and each controller 84's memory storing a master address code that is associated with a master switch (as called for in claim 21); and (2) each locator unit activating its piezoelectric sounding device 98 and LED 100 upon reception of the master address code (as called for in claim 34) enable a

user to locate all missing locator units by pressing a master switch of another locator unit instead of pressing a plurality of keys on key matrix 86, thereby making Melbourne's locator system easy to use (see Hedrick, Col. 3, lines 20-24 and 36-42).

Further regarding claims 1, 22, 28 and 34, Melbourne and Hedrick fail to teach the master address code stored in each locator unit is the same and different from the target address.

In an analogous art, Wissel discloses a selective call system, as shown in Fig. 1, comprising a call transmitter 16 and a plurality of transceivers 1-15 with indicators 19 (col. 1 lines 37-46, col. 4 lines 55-64). The transmitter includes buttons 1-15 to selectively transmit a unique target address to call a transceiver 1-15 and an additional button C to transmit a conference call or master address that is different from all the target addresses to simultaneously call all the transceivers (col. 3 lien 62 - col. 4 line 3, col. 4 line 55 - col. 5 line 47). Transmitted addresses are encoded by the circuit in fig 2 and received address are decoded by the circuit in figs. 3 and 5 that store the unique target and master address. Lamps are activated in response to calling in col. 8 lines 36-55. Although locating is not expressly discussed, the activated indicator(s) would indicate location of the activated transceiver(s).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Wissel because having transmitter unit 100' transmit one master address code instead of a plurality of address codes upon depression of master activation switch 76 and having each receiving unit 120' store the same master address code and activate bleeper 130's and lamp 132' upon receiver 122' receiving the master address code would allow simultaneous activation of all the receiving units. The "rapid succession" in col. 3 lines 21-23 of Hedrick suggested rapid speed of activating the receivers, and the "simultaneous activation" of Wissel would have provided the ultimate activating speed.

Regarding claims 2 and 29, Melbourne, as modified by Hedrick, teaches that the locator unit identities and master address code are transmitted by radio transmitter 90 at a single frequency (see Melbourne, Col. 7, lines 1-5; and Hedrick, Col.3, lines 17-22).

Regarding claims 3 and 30, Melbourne and Hedrick disclose that the single frequency is at 315 MHz (see Melbourne, Col. 7, lines 1-5 and 10-14).

Regarding claims 4-5 and 31-32, Melbourne's locator unit, as modified by Hedrick, has piezoelectric sounding device 98

(i.e., an audible indicator device, as called for in claim 31) and LED 100 (i.e., a visible indicator device, as called for in claim 32) (see Col. 4, lines 52-55; Col. 6, lines 15-21; Col. 7, lines 28-31; and Col. 9, lines 7-10).

15. Claims 15-16 and 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of Hedrick (US 5,680, 105) and Wissel (US 4290143) as applied above and further in view of Calhoun et al. (US 6,850,151).

Regarding claims 15-16 and 35, Melbourne and Hedrick's locator unit lacks an activation switch.

In analogous art, as explained above, as shown in Figs. 8 and 9, Calhoun teaches that receiver unit 13 includes power switch 54 (i.e., an activation button) that enables microprocessor 52 to activate visible alert 50 and audible alert 60 upon receipt of the address code for receiver unit 13.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Calhoun because a locator unit having power switch 54 (i.e., an activation switch) enables a user to turn off a locator unit when its not in use, thereby conserving power.

16. Claim 6-9 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of

Hedrick (US 5,680, 105) and Wissel (US 4290143) as applied to claim 28 above, and further in view of Bender (US 6,147,602).

Regarding claim 6-9 and 36, Melbourne and Hedrick are silent on incorporating locator unit into the object to be located such that the locator unit and the object are inseparable.

In an analogous art, as explained above, Bender further discloses directly incorporating the receiver unit into an object, particularly a piece of luggage (see Col. 2, lines 13-17 and 54-57 and Col. 3, lines 19-26). In addition, Bender suggests incorporating the receiving unit into other objects (see Col. 1, lines 7-8 and 64-67; Col. 2, line 1; and Col. 6, lines 17-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of the combination applied above as taught by Bender because the chances of a locator unit falling off or being accidentally removed from the object to which it is attached are eliminated by directly incorporating a locator unit into an object such that the locator unit and the object are inseparable, thereby improving the effectiveness of the system.

Response to Arguments

17. Applicant's arguments with respect to claims 1-20, 22, 24-

32 and 34-36 have been considered but are not persuasive and/or moot in view of the new ground(s) of rejection.

The argument that Lander, Hedrick, and Crabtree lack simultaneous activation is moot in view of the new grounds of rejection relying on Wissel to disclose simultaneous activation.

The argument that Melbourne, Hedrick, and Crabtree lack simultaneous activation is moot in view of the new grounds of rejection relying on Wissel to disclose simultaneous activation.

The argument that Hedrick directly teaches away from a master address different from the target address by transmitting all of the addresses is not persuasive because the "rapid succession" in col. 3 lines 21-23 of Hedrick suggested rapid speed of activating the receivers, and the "simultaneous activation" using a master address code (unique code or conference call address) different from the target address code (unique address or station identifying number) assigned to each receiver in Wissel would have provided the ultimate activating speed. Hedrick does not disclose that a common master address for simultaneous activation is undesirable or would not work. Rather, the "rapid succession" would have suggested simultaneous activation.

Conclusion

18. The prior art made of record and not relied upon is

considered pertinent to applicant's disclosure. Huang (US 5673035) discloses a locator paging system with simultaneous calling.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin C. Holloway, III whose telephone number is (571) 272-3058. The examiner can normally be reached on M-F from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman, can be reached on (571) 272-3059.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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